We Claim:

1. A slide clamp for use with a tube having a fluid passageway, the slide clamp comprising:

a plate having a longitudinal length and a transverse width; and

a slot disposed within the plate, the slot having a width;

the slot comprising a flow section in which the width of the slot is dimensioned to allow free flow of fluid through the fluid passageway when the tube is located in the flow section and an occlusion section in which the width of the slot is dimensioned to prevent free flow of fluid through the fluid passageway when the tube is located in the occlusion section;

the slot also comprising a pinch zone interconnecting the flow section and the occlusion section in which the width of the slot has a narrow configuration at which the width of the slot is less than the width in the occlusion section, the pinch zone thereby resisting movement of the tube from either the flow section or the occlusion section to another section, the slot of the pinch zone also having an expanded configuration at which the width of the slot expands to permit movement of the tube through the pinch zone upon application of a threshold force to the tube in the desired direction of movement of the tube, the pinch zone being bi-directional in that the tube may be moved through the pinch zone from either the flow section or the occlusion section.

2. The slide clamp of claim 1 wherein the pinch zone is formed such that the width of the slot resiliently returns to the narrow configuration after the tube has passed through the pinch zone.

3. The slide clamp of claim 1 wherein the pinch zone has a length and the tube has a diameter, the length of the pinch zone being less than the diameter of the tube when the tube is located in the pinch zone.

4. The slide clamp of claim 1 wherein the pinch zone is fabricated of a material having low friction surface properties.

5. The slide clamp of claim 1 wherein the pinch zone comprises:

a pair of curved beams between which is located the slot of the pinch zone;

wherein the curved beams comprise a first position at which the slot is in the narrow configuration and a second position at which the slot is in the expanded configuration; and

the curved beams are formed so as to resiliently move between the first and second positions;

whereby the curved beams resist movement of the tube from either the flow section or the occlusion section to another section.

6. The slide clamp of claim 5 further comprising a pair of apertures formed in the plate wherein one of the apertures is located laterally outward from one of the curved beams and the other of the apertures is located laterally outward from the other of the curved beams.

7. The slide clamp of claim 6 wherein the apertures located outward of each curved beam comprise rounded holes, the sizes of which are selected to result in curved beams of a desired shape and flexibility;

whereby the flexibility of the curved beams determines the threshold of force required on the tube to move through the pinch zone.

8. The slide clamp of claim 5 wherein the curved beams are formed of a deformable material that has a resiliency to regain its original shape after being subjected to a force capable of deforming the material.

9. The slide clamp of claim 5 wherein the curved beams are symmetrical;

whereby the pinch zone is bilateral in relation to the adjacent flow section and the adjacent occlusion section.

10. The slide clamp of claim 6 further comprising a biasing means for biasing the curved beams to the first position.

11. The slide clamp of claim 10 wherein the biasing means comprise material of the plate from which the curved beams are formed;

wherein the curved beams are curved toward one another when the pinch zone is in the narrow configuration;

wherein the curved beams are flexed laterally outward away from one another when the pinch zone is in the expanded configuration.

12. A slide clamp for use with a tube having a fluid passageway, the clamp including a plate having a longitudinal length and a transverse width, a slot disposed within the plate having a flow section dimensioned to allow free flow of fluid through the passageway, an occlusion section dimensioned to prevent free flow of fluid through the passageway, and a necked area interconnecting the non-occlusion section and the occlusion section, the necked area comprising:

a pair of curved beams having a space located therebetween;

a first position wherein the space between the curved beams has an unexpanded width narrower than a width of the occlusion section; and

a second position wherein the curved beams flex to expand the width of the space to permit movement of the tube from the flow section to the occlusion section and from the occlusion section to the flow section when the tube is subjected to a force adequate to flex the curved beams;

wherein the curved beams being formed so that they flex back to the first position after the tube has moved through the space; and

wherein the curved beams resist movement of the tube from the occlusion section to the flow section when the tube is subjected to a force inadequate to flex the curved beams.

13. The slide clamp of claim 12 further comprising a relief portion adjacent each curved beam for providing relief during flexing of the curved beam.

14. The slide clamp of claim 12 wherein the necked area has a flat surface for contacting the tube.

15. The slide clamp of claim 14 wherein the necked area surface is fabricated from a material having low friction surface properties.

16. The slide clamp of claim 12 wherein a surface of the occlusion section for contacting the tube is defined by an edge coming to a point.

17. The clamp of claim 16 wherein the occlusion section surface is fabricated from a material having low friction surface properties.

18. The slide clamp of claim 12 wherein the plate is made of a deformable and resilient material, the material has a resiliency to regain its original shape after being subjected to a force capable of deforming the material.